IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of:

Applicant(s): Sean Afshin Emam, *et al.*   Examiner: Joseph T. Phan

Serial No: 10/797,273   Art Unit: 2614

Filing Date: March 10, 2004

Title: DYNAMIC CALL PROCESSING SYSTEM AND METHOD

Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPEAL BRIEF

Dear Sir:

Appellants submit this brief in connection with an appeal of the above-identified patent application. Payment is being submitted via credit card in connection with all fees due regarding this appeal brief. In the event any additional fees may be due and/or are not covered by the credit card, the Commissioner is authorized to charge such fees to Deposit Account No. 50-1063 [MSFTP565US].

I.   Real Party in Interest (37 C.F.R. §41.37(c)(1)(i))

The real party in interest in the present appeal is Microsoft Corporation, the assignee of the present application.

II.   Related Appeals and Interferences (37 C.F.R. §41.37(c)(1)(ii))

Appellants, appellants' legal representative, and/or the assignee of the present application are not aware of any appeals or interferences which may be related to, will directly affect, or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III.   Status of Claims (37 C.F.R. §41.37(c)(1)(iii))

Claims 1-38 stand rejected by the Examiner. The rejection of claims 1-38 is being appealed.

IV.   Status of Amendments (37 C.F.R. §41.37(c)(1)(iv))

No amendments were made to claims after the Final Office Action dated March 6, 2007.

V.   Summary of Claimed Subject Matter (37 C.F.R. §41.37(c)(1)(v))

A.   Independent Claim 1

Independent claim 1 recites a call processing system comprising:

a switch component to receive incoming telephone calls; and (*See e.g.*, page 5, lines 26-27)

a client computer system that receives data from the switch component regarding caller identity and generates a customized response in accordance with user defined preferences, the preferences define responses based at least upon an inferred current status of the called user, the inferred current status of the called user is based upon a probabilistic model and at least one of the called user's calendar application, video camera, microphone, keyboard, PDA, vehicle, and GPS. (*See e.g.*, page 6, lines 19-22; page 7, lines 24-30, page 12, line 2-page 13, line 16; page 14, lines 12-19, page 19, line 21)

B.   Independent Claim 14

Independent claim 14 recites a dynamic call processing system comprising:

a means for receiving incoming calls; (*See e.g.*, page 5, lines 26-27)

a means for providing a client device information about a caller; and (*See e.g.*, page 6, lines 19-20)

a means for dynamically constructing a message for the caller based at least in part on a called user's specified rules, the rules are based at least upon an inferred current status of the called user, the inferred current status of the called user is based upon an artificial intelligence model and at least one of the called user's calendar application, video camera, microphone, keyboard, PDA, vehicle, and GPS. (*See e.g.*, page 6, lines 20-22; page 7, lines 24-30, page 12, line 2-page 13, line 16; page 14, lines 12-19, page 19, line 21)

C.   Independent Claim 17

Independent claim 17 recites a method of call processing comprising:

receiving an incoming call;   (*See e.g.*, page 5, lines 26-27)

inferring the current status of a called user; (*See e.g.*, page 12, lines 9-10)

validating the caller against one or more of the called user's rules, the rules are based at least upon an inferred current status of the called user, the inferred current status of the called user is based upon a probabilistic model and at least one of the called user's calendar application, video camera, microphone, keyboard, PDA, vehicle, and GPS; and (*See e.g.*, page 6, lines 20-22; page 7, lines 24-30, page 12, line 2-page 13, line 16; page 14, lines 12-19)

constructing a customized message for the caller. (*See e.g.*, page 19, line 21_

D.   Independent Claim 24

Independent claim 24 recites a method for providing customized call responses comprising:

receiving an incoming telephone call from a caller; (*See e.g.*, page 5, lines 26-27)

providing a client device caller identification information; (*See e.g.*, page 6, lines 19-20)

receiving a message from the client device, the message is based at least upon an inferred current status of a called user, the inferred status of a called user is based upon a probabilistic model and at least one of the called user's calendar application, video camera, microphone, keyboard, PDA, vehicle, and GPS; and (*See e.g.*, page 6, lines 20-22; page 7, lines 24-30, page 12, line 2-page 13, line 16; page 14, lines 12-19, page 19, line 21)

playing the message for the caller.   (*See e.g.*, page 10, lines 23-24)

E.   Independent Claim 32

Independent claim 32 recites a customized call processing methodology comprising:

receiving caller identification information; and (*See e.g.*, page 6, lines 19-20)

generating a customized message, wherein the message is a function of a particular caller and a specified called user rule, the rule is based at least upon an inferred current status of the called user, the inferred current status of the called user is based upon a probabilistic model. (*See e.g.*, paragraph (*See e.g.*, page 6, lines 20-22; page 7, lines 24-30, page 12, line 2-page 13, line 16; page 14, lines 12-19, page 19, line 21)

VI.   Grounds of Rejection to be Reviewed (37 C.F.R. §41.37(c)(1)(vi))

A.   Whether claims 1, 14, 17 and 24 should be rejected under 35 U.S.C §112, first paragraph, as failing to comply with the enablement requirement.

B.   Whether claims 1-38 are unpatentable under 35 U.S.C. 102(e) as being anticipated by Burger, *et al.* (U.S. 6,678,366).

C.   Whether claims 1-38 are unpatentable under 35 U.S.C. 103(a) over Klein, *et al.* (US 5,434,908) in view of Burger, *et al.* (US 6,678,366)

VII.   Argument (37 C.F.R. §41.37(c)(1)(vii))

A.   Rejection of Claims 1, 14, 17 and 24 Under 35 U.S.C §112

Claims 1, 14, 17 and 24 stand rejected under 35 U.S.C §112, first paragraph, as failing to comply with the enablement requirement. The Office Action asserts that claims 1, 14, 17 and 24 recite *the inferred current status of the called user is based upon a probabilistic model and at least one of the called user's calendar application, video camera, microphone, keyboard, PDA, vehicle, and GPS* which is not supported by the specification. However, page 12, lines 9-15 recites "According to one aspect of the present invention, an inferential analysis **in conjunction with** direct measurement can be utilized to determine user context." Furthermore, page 14, lines 12-19 clearly indicates that the inference analysis can use statistical and/or Bayesian models, which are well known as probabilistic models. Therefore, the specification clearly provides the necessary support for a *probabilistic model* in conjunction with (*and*) direct measurement, such

as *the called user's calendar application, video camera, microphone, keyboard, PDA, vehicle, and GPS.* Accordingly, reversal of this rejection is respectfully requested.

B.   Rejection of Claims 1-38 Under 35 U.S.C. §102(e)

Claims 1-38 stand rejected under 35 U.S.C. §102(e) as being anticipated by Burger, *et al.* (US 6,678,366). It is respectfully submitted that this rejection should be withdrawn for at least the following reasons. Burger, *et al.* does not teach each and every element of applicants' invention as recited in the subject claims.

> For a prior art reference to anticipate, 35 U.S.C. §102 requires that "each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950 (Fed. Cir. 1999) (*quoting Verdegaal Bros., Inc. v. Union Oil Co.*, 814 F.2d 628, 631, 2
> USPQ2d 1051, 1053 (Fed. Cir. 1987)).

The subject invention relates to a call processing system that utilizes caller identification information along with call recipient preferences and status to determine an appropriate response, such as a personalized message, forwarding the call to an appropriate device, activating voicemail, or translating a response message into a language appropriate for the caller. In particular, independent claim 1 (and similarly independent claims 14, 17, 24 and 32) recites *generating a customized response in accordance with user defined preferences, the preferences define responses based at least upon an inferred current status of the called user,* **the inferred current status of the called user is based upon a probabilistic model and at least one of the called user's calendar application, video camera, microphone, keyboard, PDA, vehicle, and GPS.**

Contrary to assertions in the Office Action, Burger, *et al.* does not teach or suggest the aforementioned novel aspects of applicants' invention as recited in the subject claims. The cited art discloses a call processing system that attempts to locate a subscriber when a call arrives. The system attempts to call each of the subscriber's phone numbers to identify which phone the subscriber is near. However, Burger, *et al.* is silent regarding inferring the current status of a caller and also does not teach employing a probabilistic model to perform an inference. The

Office Action cites the "best guess location" of the cited reference as exemplary of a probabilistic model. On the contrary, the cited reference merely uses the last phone number where the subscriber answered the phone or the phone was busy as the "best guess location." This is not a probabilistic model in which probabilities are determined. This is a fixed rule. Furthermore, contrary to assertions in the Office Action, the cited art does not disclose a user's calendar application. The section of the reference that was cited merely discloses setting a time of day threshold for setting the "best guess location". The section does not discuss a user's calendar application or employing one to infer the current status of a subscriber. Therefore, Burger, *et al.* fails to teach or suggest generating a customized response in accordance with user defined preferences, the preferences define responses based at least upon an inferred current status of the called user, the inferred current status of the called user is based upon a probabilistic model and at least one of the called user's calendar application, video camera, microphone, keyboard, PDA, vehicle, and GPS.

In view of at least the foregoing discussion, applicants' representative respectfully submits that Burger, *et al.* fails to teach or suggest all limitations of applicants' invention as recited in independent claims 1, 14, 17, 24 and 32 (and all claims that respectfully depend there from), and thus fails to anticipate the subject claimed invention. Accordingly, reversal of this rejection is respectfully requested.

C.   Rejection of Claims 1-38 Under 35 U.S.C. §102(b)

Claims 1-38 stand rejected under 35 U.S.C. §102(b) as being anticipated by Klein, *et al.* (US 5,434,908) or, in the alternative, under 35 U.S.C. §103(a) as obvious over Klein, *et al.* (US 5,434,908) in view of Burger, *et al.* (US 6,678,366). It is respectfully submitted that this rejection should be withdrawn for at least the following reasons. Burger, *et al.* and Klein, *et al.*, alone or in combination, do not teach each and every element of appellants' invention as recited in the subject claims.

> [T]he prior art reference (or references when combined) must teach or suggest all claim limitations. *See* MPEP §706.02(j). The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *See In re Vaeck*, 947

F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

As noted *supra*, Burger, *et al.* fails to teach or suggest *generating a customized response in accordance with user defined preferences, the preferences define responses based at least upon an inferred current status of the called user,* **the inferred current status of the called user is based upon a probabilistic model and at least one of the called user's calendar application, video camera, microphone, keyboard, PDA, vehicle, and GPS** as recited in independent claim 1 (and similarly independent claims 14, 17, 24 and 32). Klein, *et al.* fails to make up for the deficiencies of Burger, *et al.* with respect to the independent claims. Klein, *et al.* discloses a system where the subscriber's voicemail greeting is generated from the subscriber's calendar. However, the system merely takes the information from the calendar based upon the current time and copies the calendar data into the greeting. The system does not make any attempt to understand the calendar data and infer a subscriber's current status. Furthermore, Klein, *et al.* is silent regarding a probabilistic model.. Therefore, Burger, *et al.* and Klein, *et al.*, alone or in combination, fail to teach or suggest generating a customized response in accordance with user defined preferences, the preferences define responses based at least upon an inferred current status of the called user, the inferred current status of the called user is based upon a probabilistic model and at least one of the called user's calendar application, video camera, microphone, keyboard, PDA, vehicle, and GPS.

Accordingly, applicants' representative respectfully submits that Burger, *et al.* in view of Klein, *et al.* fails to teach or suggest all limitations of applicants' invention as recited in independent claims 1, 14, 17, 24 and 32 (and all claims that respectfully depend there from), and thus fails to make obvious the subject claimed invention. Accordingly, reversal of this rejection is respectfully requested.

D.   CONCLUSION

The present application is believed to be in condition for allowance in view of the above comments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063 [MSFTP565US].

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact appellants' undersigned representative at the telephone number below.

Respectfully submitted,

AMIN, TUROCY & CALVIN, LLP

/Himanshu S. Amin/_____
Himanshu S. Amin
Reg. No. 40,894

AMIN, TUROCY & CALVIN, LLP
24TH Floor, National City Center
1900 E. 9TH Street
Cleveland, Ohio 44114
Telephone (216) 696-8730
Facsimile (216) 696-8731

VIII.   Claims Appendix (37 C.F.R. §41.37(c)(1)(viii))

1.   A call processing system comprising:

a switch component to receive incoming telephone calls; and

a client computer system that receives data from the switch component regarding caller identity and generates a customized response in accordance with user defined preferences, the preferences define responses based at least upon an inferred current status of the called user, the inferred current status of the called user is based upon a probabilistic model and at least one of the called user's calendar application, video camera, microphone, keyboard, PDA, vehicle, and GPS.

2.   The system of claim 1, the computer system comprising a call processing component that generates a message to be played to a caller.

3.   The system of claim 2, the preferences contain user defined rules.

4.   The system of claim 3, further comprising a preference application programming interface component adapted to receive one or more preferences and store them in a preference store.

5.   The system of claim 2, further comprising a preference execution component adapted to receive and/or retrieve preferences from the preference store and generate a response to an incoming call.

6.   The system of claim 2, further comprising a translation component adapted to translate a message from a first language to a second language.

7.   The system of claim 2, wherein the call processing component provides for a called user to be notified.

8.   The system of claim 7, further comprising a context component that determines a called user's context to facilitate selection of an appropriate notification device and means of notification.

9.   The system of claim 8, the notification device including one of a mobile phone, a pager, a personal computer and a personal digital assistant.

10.   The system of claim 1, wherein the incoming telephone call is parked after it is received to provide sufficient time for response construction..

11.   The system of claim 1, wherein the client computer system is a personal computer.

12.   The system of claim 1, wherein the client computer system is a television set-top box.

13.   The system of claim 1, wherein the client computer system is a gaming console.

14.   A dynamic call processing system comprising:
        a means for receiving incoming calls;
        a means for providing a client device information about a caller; and
        a means for dynamically constructing a message for the caller based at least in part on a called user's specified rules, the rules are based at least upon an inferred current status of the called user, the inferred current status of the called user is based upon an artificial intelligence model and at least one of the called user's calendar application, video camera, microphone, keyboard, PDA, vehicle, and GPS.

15.   The system of claim 14, further comprising a means of playing the constructed message to the caller.

16.   The system of claim 14, further comprising a means for notifying the called user of a phone call.

17.   A method of call processing comprising:

receiving an incoming call;

inferring the current status of a called user;

validating the caller against one or more of the called user's rules, the rules are based at least upon an inferred current status of the called user, the inferred current status of the called user is based upon a probabilistic model and at least one of the called user's calendar application, video camera, microphone, keyboard, PDA, vehicle, and GPS; and

constructing a customized message for the caller.

18.   The method of claim 17, further comprising playing the message to the caller.

19.   The method of claim 17, wherein the call is parked after it is received to provide sufficient time for message construction.

20.   The method of claim 19, wherein a ring tone is simulated while the call is parked.

21.   The method of claim 19, wherein an audio message asks the caller to hold while the call is processed.

22.   The method of claim 17, further comprising notifying the called user of a call.

23.   A computer having stored thereon computer executable instructions for carrying out the method of claim 17.

24.   A method for providing customized call responses comprising:

　　　　receiving an incoming telephone call from a caller;

　　　　providing a client device caller identification information;

　　　　receiving a message from the client device, the message is based at least upon an inferred current status of a called user, the inferred status of a called user is based upon a probabilistic model and at least one of the called user's calendar application, video camera, microphone, keyboard, PDA, vehicle, and GPS; and

　　　　playing the message for the caller.

25.   The method of claim 24, wherein the call is received utilizing a telecommunication switch.

26.   The method of claim 24, further comprising parking the call after receiving it to provide sufficient time to receive a message from the client device.

27.   The method of claim 26, wherein parking a call includes simulating a ring tone.

28.   The method of claim 26, wherein parking a call include asking a caller to hold while the call is processed.

29.   The method of claim 24, wherein the client device applies called user preferences to generate customized messages for each caller or group of callers.

30.   The method of claim 24, further comprising notifying the called user of the call.

31.   A computer having stored thereon computer executable instructions for carrying out the method of claim 24.

32.   A customized call processing methodology comprising:

      receiving caller identification information; and

      generating a customized message, wherein the message is a function of a particular caller and a specified called user rule, the rule is based at least upon an inferred current status of the called user, the inferred current status of the called user is based upon a probabilistic model.

33.   The method of claim 32, wherein the caller identification information is received from a telecommunication company.

34.   The method of claim 32, wherein the caller identification information is received *via* an instant messaging channel, thereby avoiding interference from firewalls.

35.   The method of claim 32, wherein the customized message is a notification to the called user.

36.   The method of claim 32, the called user's status is determined utilizing data associated with one or more software applications stored on the party's computing device.

37.   The method of claim 36, wherein the application is a calendar or scheduling application.

38.   A computer having stored thereon computer executable instructions for carrying out the method of claim 32.

IX.   **Evidence Appendix (37 C.F.R. §41.37(c)(1)(ix))**

None.

X.   Related Proceedings Appendix (37 C.F.R. §41.37(c)(1)(x))

None.